Dougherty Valley HS Chemistry - AP
Bonding – Lewis Structures

Worksheet #1

Name: **Period:** **Seat#:**

Directions: Indicate the # of **VALENCE** electrons for each species. Write the correct Lewis electron-dot structure for each. Note the shape of the molecule (for compounds only). Don't forget to adjust the number of electrons for ions and to include square brackets and charges for ions.

F # of valence e⁻'s = ____	**O** # of valence e⁻'s = ____	**K** # of valence e⁻'s = ____	**Al** # of valence e⁻'s = ____
F^- # of valence e⁻'s = ____	**O^{2-}** # of valence e⁻'s = ____	**K^+** # of valence e⁻'s = ____	**Al^{3+}** # of valence e⁻'s = ____
F_2 # of valence e⁻'s = ____ Shape:	**H_2** # of valence e⁻'s = ____ Shape:	**HF** # of valence e⁻'s = ____ Shape:	**NH_3** # of valence e⁻'s = ____ Shape:
CH_4 # of valence e⁻'s = ____ Shape:	**NF_3** # of valence e⁻'s = ____ Shape:	**SiF_4** # of valence e⁻'s = ____ Shape:	**C_2H_6** # of valence e⁻'s = ____ *Shape:
MgH_2 # of valence e⁻'s = ____	**LiH** # of valence e⁻'s = ____	**AlH_3** # of valence e⁻'s = ____	**BH_3** # of valence e⁻'s = ____ Shape:

*Just pick one of the carbons to be "center" and then figure out the geometry based on that one.

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C_2H_4 # of valence e⁻'s = ____ Shape:	**C_2F_4** # of valence e⁻'s = ____ Shape:	**CO** # of valence e⁻'s = ____ Shape:	**O_2** # of valence e⁻'s = ____ Shape:
CO_2 # of valence e⁻'s = ____ Shape:	**C_2H_2** # of valence e⁻'s = ____ Shape:	**N_2** # of valence e⁻'s = ____ Shape:	**HCN** # of valence e⁻'s = ____ Shape:
CN^- # of valence e⁻'s = ____ Shape:	**SO_4^{2-}** # of valence e⁻'s = ____ Shape:	**PO_4^{3-}** # of valence e⁻'s = ____ Shape:	**ClO_3^-** # of valence e⁻'s = ____ Shape:
CO_3^{2-} # of valence e⁻'s = ____ Shape:	**NO_3^-** # of valence e⁻'s = ____ Shape:	**SO_2** # of valence e⁻'s = ____ Shape:	**O_3** # of valence e⁻'s = ____ Shape:
SF_6 # of valence e⁻'s = ____ Shape:	**XeF_4** # of valence e⁻'s = ____ Shape:	**PCl_5** # of valence e⁻'s = ____ Shape:	**SeF_4** # of valence e⁻'s = ____ Shape: